

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning on page 16, line 24, with the following amended paragraph:

A method of producing a tapered optical fibre is further provided, the method comprising the steps of:

- a. heating a section of the an optical fibre of ~~claim 35~~ as described above;
- b. stretching the optical fibre of ~~claim 35~~ during heating; thereby providing first and second fibre cross sections being separated by a tapered length of the optical fibre over which the cross-sectional physical dimensions of the fibre are tapered down from the first to the second cross section; and
- c. optionally cleaving the optical fibre after stretching at one or more positions.

Please replace the paragraph beginning on page 17, line 19, with the following amended paragraph:

In a particular embodiment, the stretching is performed using a fibre tapering rig after production of the an optical fibre of ~~claim 26~~ as described above.

Please replace the paragraph beginning on page 17, line 25, with the following amended paragraph:

In a particular embodiment, the stretching is performed during production of a fused, tapered fibre bundle comprising the an optical fibre of ~~claim 26~~ as described above.

Please replace the paragraph beginning on page 17, line 25, with the following amended paragraph:

A method of producing a tapered optical fibre is furthermore provided, the method comprising the steps of:

- a. providing a preform comprising cross-sectional characteristics of the an optical fibre of claim 35 as described above on a larger scale;
- b. placing said preform in an optical fibre drawing tower setup;
- c. pulling optical fiber from a heated end of said preform;
- d. varying fibre pulling speed and/or preform feed speed during fibre pulling.

Please replace the paragraph beginning on page 17, line 35, with the following amended paragraph:

A method for combining a first optical device having a light guiding structure with a mode field with diameter MFD_f and a second optical device having a light guiding structure with a mode field with diameter MFD_s different from MFD_f is furthermore provided, the method comprising:

- a. providing an optical fibre ~~according to any one of claims 1-34 as described herein~~ or a tapered optical fibre realized using ~~the a method of any one of the claims 36-41 as described herein~~ having a thick end with MFD_1 substantially similar to MFD_f and a reduced-diameter end with MFD_2 substantially similar to MFD_s ;
- b. attaching said thick end to said first optical device;

- c. attaching said reduced-diameter end to said second optical device.